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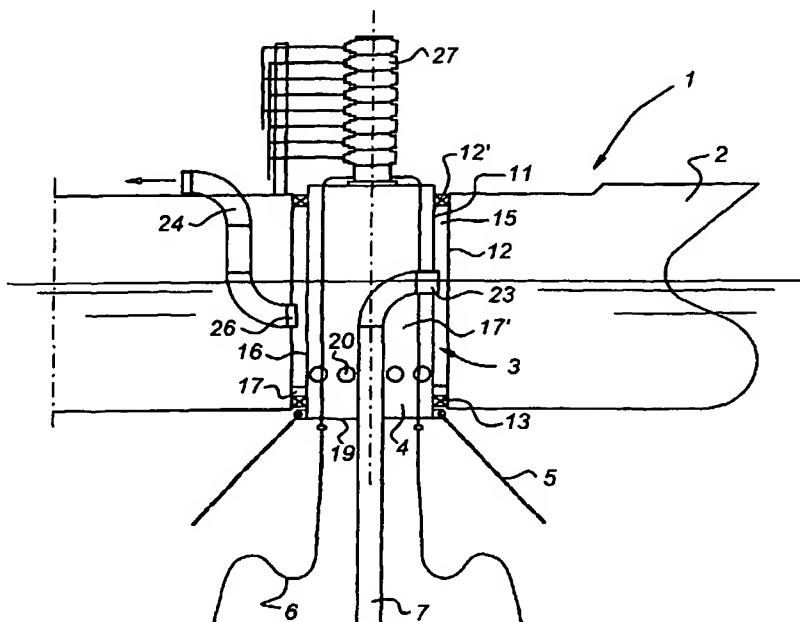
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(54) Title: VESSEL WITH DEEP WATER INTAKE SYSTEM



(57) Abstract: The invention relates to a deep-water intake system comprising a water intake duct (7) which is connected to a turret (4) of a turret-moored vessel (1). The turret (4) is used as a swivel for the large-diameter deep-water intake duct (7) while the vessel can freely weathervane around the turret.



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**A. CLASSIFICATION OF SUBJECT MATTER**  
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EPO-Internal, PAJ**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category * | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
|------------|---|-----------------------|
| A          | US 6 003 603 A (BREIVIK KARE ET AL)<br>21 December 1999 (1999-12-21)<br>cited in the application<br>the whole document<br>--- | 1-10                  |
| A          | US 5 823 131 A (ETHERIDGE CHARLES O ET AL)<br>20 October 1998 (1998-10-20)<br>abstract; figures<br>---                        | 1-10                  |
| A          | US 6 094 937 A (LILLESUND SIGBJOERN ET AL)<br>1 August 2000 (2000-08-01)<br>column 6, line 51 - line 61<br>-----              | 1                     |

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Information on patent family members

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| Patent document<br>cited in search report |   | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
|---|---|---------------------|----------------------------|---------------------|
| US 6003603                                | A | 21-12-1999          | NO 944754 A                | 10-06-1996          |
|   |   |                     | AU 4273096 A               | 26-06-1996          |
|   |   |                     | CA 2207042 A1              | 13-06-1996          |
|   |   |                     | GB 2311981 A ,B            | 15-10-1997          |
|   |   |                     | WO 9617777 A1              | 13-06-1996          |
| US 5823131                                | A | 20-10-1998          | AU 714622 B2               | 06-01-2000          |
|   |   |                     | AU 5444498 A               | 29-06-1998          |
|   |   |                     | BR 9713731 A               | 25-01-2000          |
|   |   |                     | DK 941200 T3               | 14-04-2003          |
|   |   |                     | EP 0941200 A1              | 15-09-1999          |
|   |   |                     | NO 992911 A                | 09-08-1999          |
|   |   |                     | WO 9824686 A1              | 11-06-1998          |
| US 6094937                                | A | 01-08-2000          | NO 301792 B1               | 08-12-1997          |
|   |   |                     | AU 3363297 A               | 02-02-1998          |
|   |   |                     | WO 9801335 A1              | 15-01-1998          |

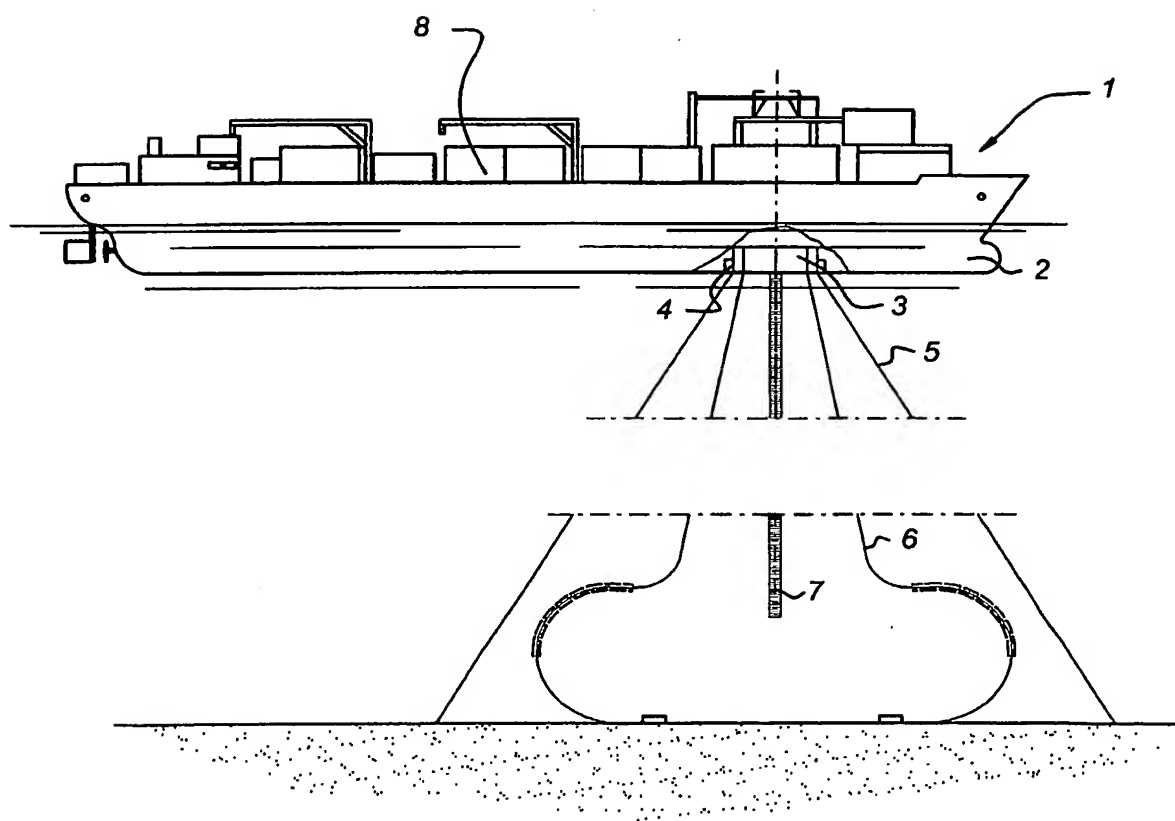
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*Fig 1*

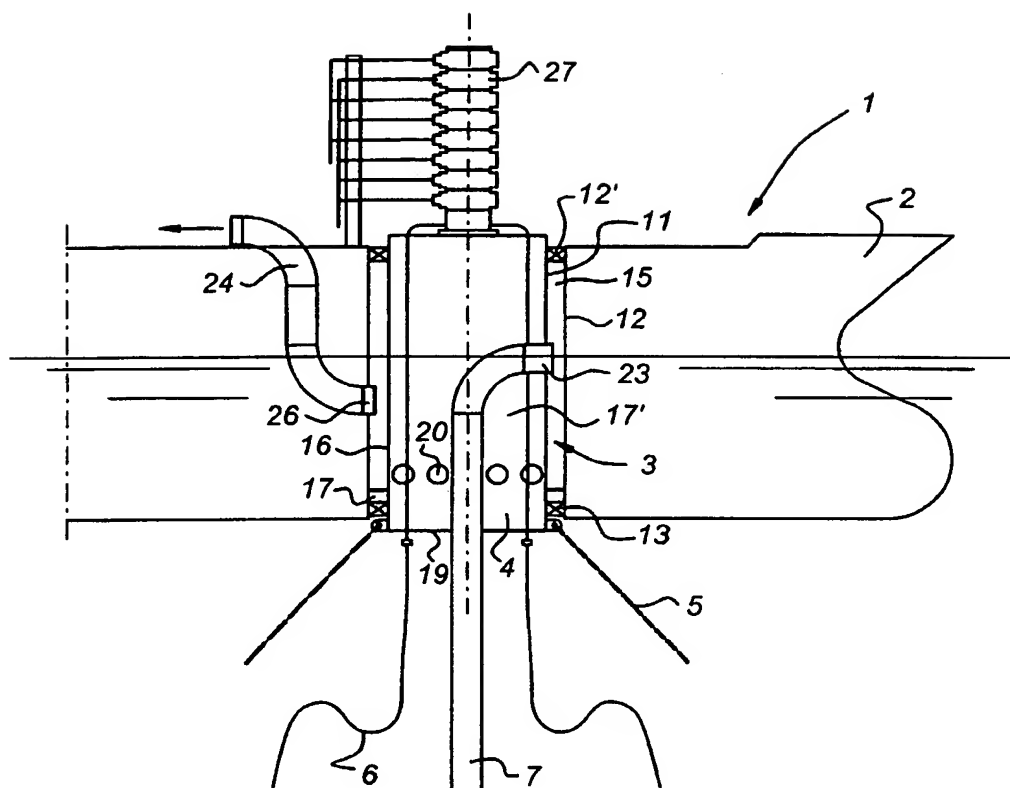
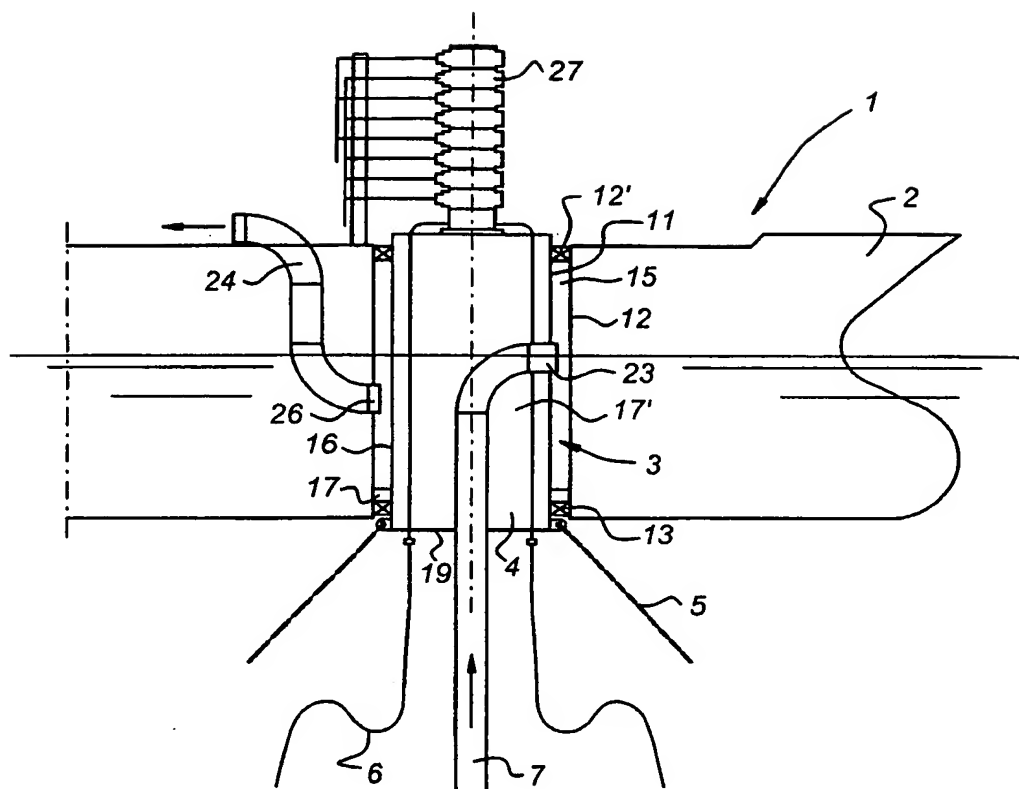
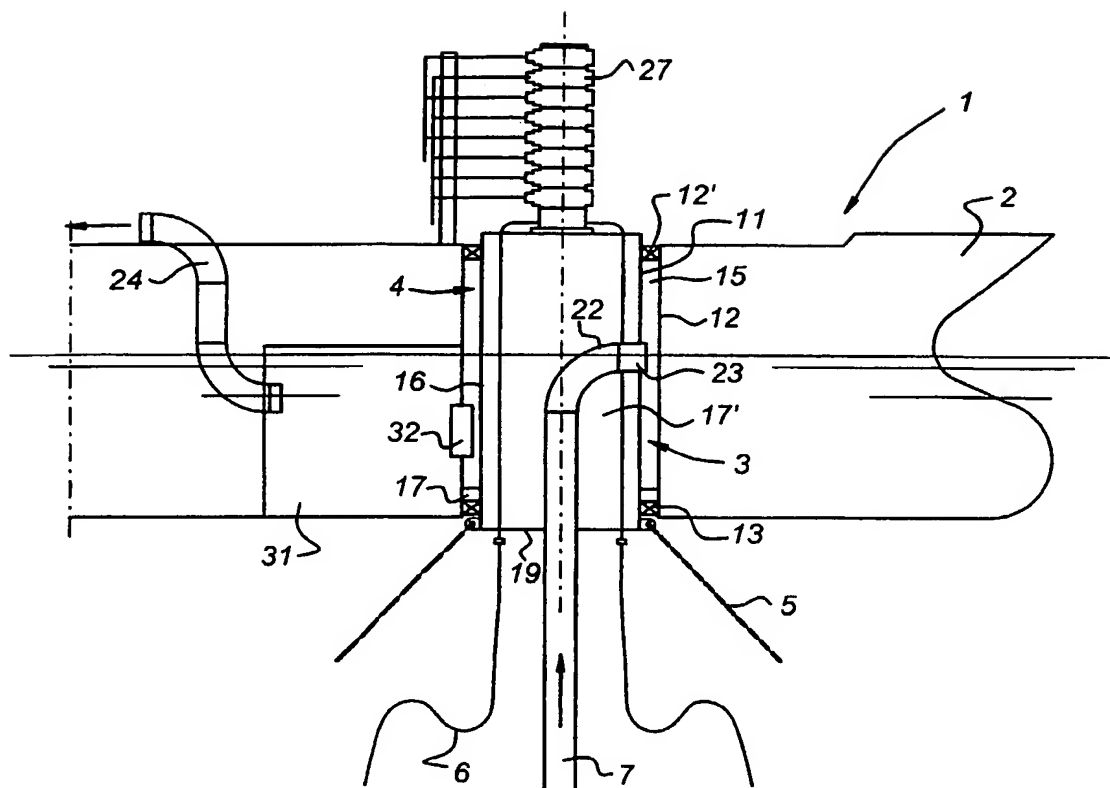
*Fig 2*

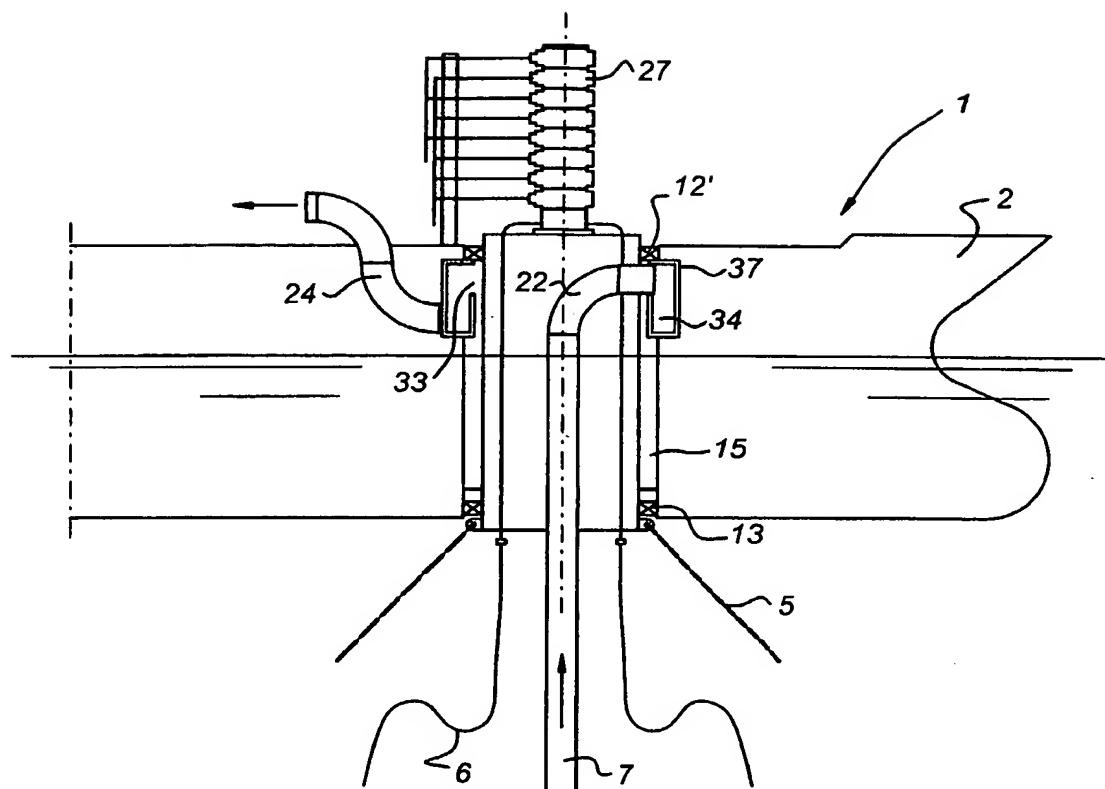
Fig 3





**Fig 4**



*Fig 5*

*Fig 6*